

**REMARKS**

Claims 1, 3-14, and 17-21 are pending. By this Amendment, claims 13 and 21 are amended. The amendments to claims 13 and 21 are only for sake of clarity and not intended to change the scope of the claims. The amendments only make the features previously recited in the claims more explicit. Therefore, the amendments are non-narrowing and do not affect the patentability of the claims. No new matter is added. Reconsideration of the application is respectfully requested.

Applicants thank Examiner Schillinger for the courtesies extended to Applicants' representatives during the December 19 personal interview. The substance of the interview is incorporated herein.

The Office Action withdraws claim 21 from consideration as being directed to a constructively non-elected invention. However, as discussed during the interview, Applicants respectfully submit that claim 21 is an independent form of originally filed, now cancelled claim 16. The subject matter of claim 16 was considered by the Patent Office in the December 7, 2004 Office Action. In addition, the subject matter of claim 21 was considered by the Patent Office in the April 11, 2005 Final Rejection. Moreover, as discussed during the interview, method claim 3 recites a microelectromechanical system-based element defined in the substrate, which is also recited in claim 21, and claim 3 has been considered by the Patent Office. Thus, it is respectfully submitted that claim 21 should not now be considered to be directed to a constructively non-elected invention. Prompt and favorable consideration of claim 21 is respectfully requested.

The Office Action rejects claim 13 under 35 U.S.C. §102(a) over Applicants' Admitted Prior Art (APA). Applicants understand that claim 14 is also rejected under this rejection because reasoning regarding claim 14 is also provided in the Office Action. This rejection is respectfully traversed.

Claim 13 recites a plurality of heterogeneous circuit devices defined in the same substrate and a photodiode defined in the same substrate.

As discussed during the interview, the Office Action alleges that paragraph [0002] of Applicants' specification teaches these features. However, paragraph [0003] describes that each of heterogeneous devices is fabricated on separate chips using different processes, and that the fabricated devices are then combined to form various components of the overall system. Therefore, when fabricated, although a multiple number of the heterogeneous devices may be provided to form a system, they are formed on separate chips. Accordingly, Applicants respectfully assert that the APA does not teach or suggest that a plurality of heterogeneous circuit devices and a photodiode are defined in the same substrate, as claim in claim 13. Therefore, Applicants respectfully submit that claim 13 is patentable over the APA.

Claim 14 is allowable at least for its dependence on claim 13, as well as for the additional feature it recites.

As such, withdrawal of the rejection is respectfully requested.

The Office Action rejects claims 17-20 under 35 U.S.C. §103(a) over the APA in view of U.S. Patent No. 6,111,305 to Yoshida et al. (Yoshida), rejects claims 1, 3-5, and 8-12 under 35 U.S.C. §103(a) over the APA in view of U.S. Patent No. 5,498,554 to Mei, and rejects claims 6 and 7 under 35 U.S.C. §103(a) over the APA and Mei, further in view of Yoshida. These rejections are respectfully traversed.

Neither Mei nor Yoshida overcomes the deficiencies of the APA with respect to claim 13. Therefore, claims 1, 3-12, and 17-21 are allowable at least for their dependence on claim 13, as well as for the additional features they recite. Accordingly, withdrawal of the rejections is respectfully requested.

Because the rejection of claim 21 in the April 11, 2005 Final Rejection has been withdrawn, Applicants respectfully submit that claim 21 should be allowed.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the application are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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